STATEMENT OF CONSIDERATIONS

Request by Amoco Production Company for an Advance Waiver of Domestic and Foreign Invention Rights under Cooperative Agreement No. DE-AC22-94PC-94064 W(A)-95-025, CH-0869

Amoco Production Co. (Amoco) has requested a waiver of domestic and foreign rights for all subject inventions under this agreement, subject to the patent rights provisions of the agreement (attached). The subject cooperative agreement is directed toward research and development leading to the development of catalyst and process technology for evaluations as potential routes for the production of high volume fuel oxygenates. Success would generate novel routes to produce oxygenates to satisfy the Clean Air Act Amendments of 1990 that require increasing the oxygen content of gasoline by 2.7% by weight in carbon monoxide (CO) non-attainment areas, and to 2.0% by weight in ozone (O₃) non-attainment areas, to thereby achieve a reduction in pollutants resulting from combustion of fuels.

As brought out in Amoco's response to question 3 in the attached copy of its petition for waiver, the total estimated cost of this agreement is about \$883,182 with Amoco cost sharing about 21 percent of the total agreement cost, or \$185,551. DOE is thus providing \$697,631 toward this effort. The period for performance of the Cooperative agreement is from October 1, 1994 to September 30, 1996.

As indicated in Arnoco's letter forwarding this petition to DOE, Amoco's request for this advance waiver was delayed as the result of corporate restructuring. It is understood that this waiver will not revert back to the beginning of the cooperative agreement effort. Nevertheless, along with this petition, Amoco has submitted a first invention disclosure under this cooperative agreement entitled "Catalyst System for the Direct Conversion of Methanol to Light Higher Alcohols" (DOE Case No. S-84,629, "Attachment 1"). Amoco is also requesting a waiver of domestic and foreign rights in this identified invention. The delay in filing this petition is excused with respect to both the identified invention and the advance waiver.

Amoco is technically competent in the field of gas utilization and technology related to oxygenate production. Appendices A and B list extensive publications and patents in this technological area. The government has rights in two of the patents listed in appendix B. One is the result of a work-for-others agreement with Argonne National Laboratory (S-76,940, patent no. 5.356,728). The other is from a CRADA with Argonne (S-79,902) which DOE is currently prosecuting. These two patents are not within the scope of the work covered by this cooperative agreement, but are the result of complementary work.

In addition to its direct cost sharing, according to its response to questions 7 and 8. Amoco has invested in background research relevant to the cooperative agreement technology. This investment has been about \$40 million dollars in the construction and operation of several laboratory and pilot scale research units to study the production of oxygenates. Amoco is also performing cooperative research with outside organizations throughout the world in countries including Denmark, Switzerland, and Russia. Amoco intends further investment in the technology. In addition to cost share, Amoco has had a continuous investment through a dedicated engineering group providing technical expertise derived from previous research. This private investment clearly demonstrates Amoco's commitment to the technology and indicates a likelihood of an effort to commercialize the results of the agreement.

The grant of the waiver will more effectively promote the development and commercial utilization of any future inventions under the cooperative agreement, as well as the invention submitted with the petition. As brought out in response to question's 5, 9 and 10 of the petition, Amoco is currently not participating in the manufacture of oxygenates market. Granting of the waiver will provide incentives for Amoco to enter the market and to further develop the technology. Competition will be promoted in that the market for low cost oxygenates will be driven by Amoco's participation. It is intended that a variety of fuel oxygenates be generated as the result of work under this cooperative agreement. R&D work directed to producing oxygenates is in progress in several laboratories, and Amoco intends to involve others in the industry in the application of this new technology under reasonable terms.

Amoco has agreed to the standard provisions with respect to invention waivers with the substitution of the march in rights, U.S. manufacturing preference, and U.S. government license provided in 35 U.S.C. 202-204. Additionally, Amoco has accepted standard background patent and data provisions of paragraphs (k),(h) and (j) to assure commercialization of the technology. Amoco has agreed to the provisions of the attached U.S. Competitiveness clause. This clause recognizes that there are site-specific issues in the oxygenate producing industry where U.S. manufacture may not be commercially practical. It is noted that the Energy Policy Act of 1992 (42 U.S.C. § 13201 et. seq.) does not apply to this cooperative effort

Considering the foregoing, it is believed that granting the waiver will provide Amoco with the necessary incentive to invest its resources in the commercialization of the results of the invention and cooperative agreement in a fashion which will make the invention's and cooperative agreement's benefits available to the public in the shortest practicable time. Therefore, in view of the objectives and considerations set forth in 41 CFR 9-9.109-6, all of which have been considered, it is recommended that the requested waiver, covering the identified invention S-84,629, as well as any other inventions made under the cooperative agreement, be granted.

Mark P. Dvorscak, Patent Attorney Intellectual Property Law Department

Date: 10 1996

Based on the forgoing Statement of Considerations and the representations in the waiver request, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of this agreement, where through such modification or extension, the purpose, scope, or cost of the agreement is substantially altered.

CONCURRENCE:

Howard Felbus

Associate Deputy Assistant Secretary for Research and Development Office of Coal Technology, HQ

APPROVAL:

Paul A. Gottlieb
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